

# What is Lumpy Skin disease?

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**In news**– The outbreak of lumpy skin disease was reported in Rajasthan and Gujarat recently.

## **About Lumpy Skin Disease(LSD)-**

- Lumpy skin disease is an infectious/**viral disease in that affects mostly cows of both indigenous breeds as well as the exotic**
- The disease is characterized by **fever, enlarged superficial lymph nodes and multiple nodules on the skin and mucus.**
- **The exotic breeds of cattle like Jersey and HF are more susceptible** due to their low immunity levels as compared to indigenous breeds.
- The LSD **also affects buffaloes but not on the scale it does to cattle** as buffaloes have higher immunity levels as compared to cattle.
- **LSD is caused by a virus called lumpy skin disease virus (LSDV) of capripoxvirus genus in the poxviridae family**(also known as Neethling virus), **where capri means goat.**
- The **LSDV has origins in Africa** and it has been there in that continent for around 100 years now.
- **The African Cape buffalo is possibly the reservoir of this virus in the wild.** LSDV has a **limited host range** and it **doesn't infect non-ruminant animals.**
- However, even after coming in close contact with infected cattle, sheep and goats never develop LSD.
- **In Asia, it was first reported in China in 2019,** then in Bangladesh and in India.
- The viruses remain present in the environment and strike when their victim's immunity goes down. **Just like in Covid-19, some people don't develop any symptoms while others become seriously ill.**

- **This is primarily a vector-borne disease. It is spread by blood-sucking vectors like mosquitos, ticks, houseflies etc.**
- **Sometimes, the LSD spreads through direct close contact also. It also spreads through direct contact with the mucus of the infected cattle.**
- Cattle of all breeds and both sexes and of all age groups are susceptible to LSDV.
- However, **younger animals may be more susceptible to the severe form of the disease.**
- **Its spread in Saurashtra coincides with persistent rainfall.** During such weather, animals remain stressed and remain susceptible to viral diseases.
- The **virus attacks the circulatory system of the animal and thus affects all vital organs of the animal.** But it **attacks the skin of the animal** the most and as a reaction, lumps emerge on the skin of the infected animals.
- The lumps or nodules cause irritation to animals, consuming a lot of energy of the infected bovine. Sometimes animals go down with fever.
- All these things put an animal under stress and the animal **reduces its food intake. Consequently, milk production reduces by 20 per cent.**
- **LSD is curable** and recovery will be fast if treatment is given at early stages of the infection.
- While LSD rarely causes deaths on its own, the infection compromises immunity, making the animal susceptible to other infections.
- Combination of LSD with other infections may prove fatal. Generally, 10 per cent mortality has been observed in LSD.
- **LSDV is a very fragile virus and without their host, it dies at around 37 degrees. So, milk produced by an infected animal will be fit for human consumption after boiling or pasteurisation** as these processes will kill the viruses, if any, in the milk.

- LSDV **doesn't remain viable, meaning alive, on inanimate surfaces like soil or water beyond five to 10 minutes** and there have been **no cases of the virus jumping to humans.**
- It can be treated with goat pox vaccine that is available in India and has around 70 per cent efficacy.
- Antibodies develop in an animal three weeks after the animal is given a dose of vaccine and they generally last for six months.